INDIAN SUSTAINABLE ENERGY NEWS

Volume 1, Number 1
Winter Solstice 1998

IN THIS ISSUE



*Indian Sustainable Energy News is a publication of the Native American Renewable Energy Education Project*

TRIBAL PERSPECTIVE

# Tribes REACH Out to Lower Energy Bills

There is something new happening at the energy assistance office of the Grand Traverse Band of Ottawa and Chippewa Indians. "People were calling to say they had a huge bill or were out of fuel. Now they are calling to ask how to do weatherization to lower their bills before they need help," says Sonya George. She is the director of a program designed to help tribal families in northeastern Michigan meet energy costs and achieve self-sufficiency.

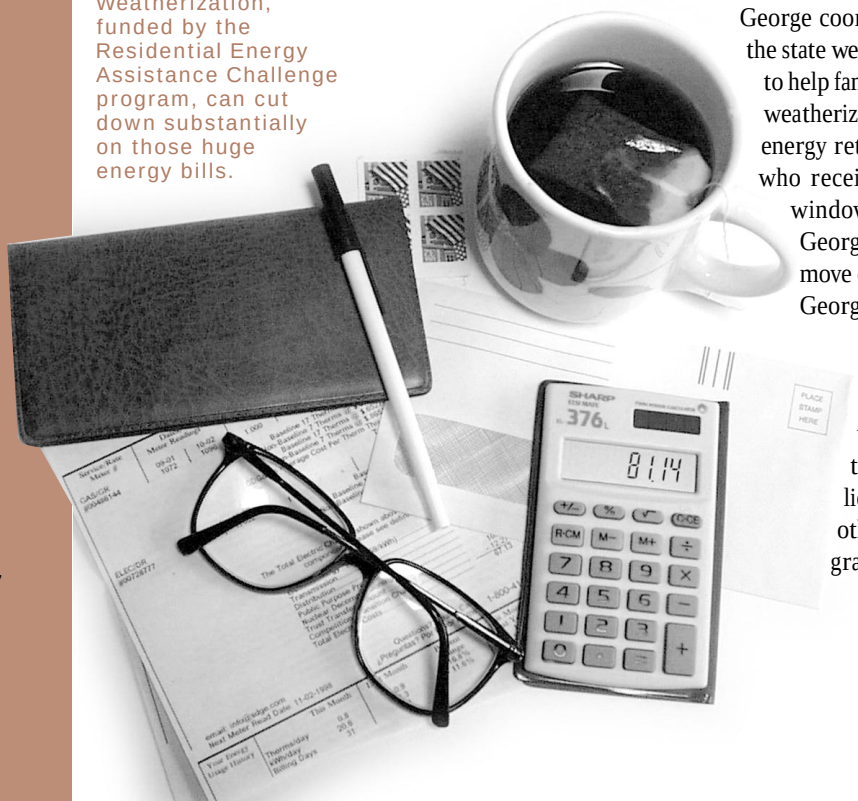
The program is funded by a federal Residential Energy Assistance Challenge (REACH) grant available to tribes and tribal organizations receiving LIHEAP energy assistance. Each year since the REACH program began in 1996, three to four tribes have been awarded grants of up to $175,000. Grand Traverse is the only tribe to have received a grant three years in a row.

## Weatherization and Budgeting Assistance

The Grand Traverse REACH program sponsors community meetings where families learn about ways to lower their energy bills. "Each participant receives a project weatherization kit to get started," says George. This includes caulking, weather-stripping, a hot water heater blanket, plastic to cover windows, and hot water pipe insulation. Families also receive one-on-one attention at the energy assistance office and during home visits.

George coordinates with a contractor from the state weatherization assistance program to help families install materials from their weatherization kits and do more extensive energy retrofits. "We had a single mother who received insulation, a furnace, and windows through our referral," says George. "This kept her from having to move out to a home with higher rent." George works closely with other programs that can help families keep up with energy payments. She explains, "I work directly with the human services director for the tribe who sends families to me. I also refer families to other tribal programs." These programs include family counseling,

*Continued on page 4*



Weatherization, funded by the Residential Energy Assistance Challenge program, can cut down substantially on those huge energy bills.

# Residential Energy Conservation Retrofits

Most households on your reservation can save hundreds of dollars per year through cost-effective energy efficiency measures. Following is an overview of these measures along with references to readily available guides for each step. Unless otherwise noted, referenced publications in square brackets are available from the Energy Efficiency and Renewable Energy Clearinghouse (EREC), which can be accessed by phone or website listed on page six.

Energy conservation measures can be organized into three categories of energy end uses: (1) heating and cooling, (2) water heating, and (3) all other uses, which include refrigeration, lighting, and clothes drying.

## Heating and cooling

The least expensive heating and cooling measures include caulking, sealing, and weatherstripping cracks and openings to the outside (or any place that is not heated or cooled). Sealing of heating and cooling system ducts is also very effective. [*Insulation Factsheet* and *Home Energy Audits*]

Another inexpensive way to lower costs is to turn your thermostat down for all or part of each day. [*Automatic and Programmable Thermostats*] Regular maintenance on furnace and air conditioners, can also lower costs. [*Energy Savers*] If you are replacing your furnace or air conditioner, look into buying a more energy efficient model. See *the Resources section* on page six to find listings of efficient appliances.

Adding insulation to walls, attics, floors, basements, crawlspaces, and ducts can be very cost-effective and also helps make homes more comfortable. After sealing and insulating, windows are the next priority. [*Insulation Factsheet* and *Energy-Efficient Windows*]

All of the measures mentioned above are collectively known as weatherization measures. One more should be added to the list, since it is one of the best long-term investments in decreasing heating and cooling costs: landscaping. Judicious planting of trees and shrubs can significantly decrease heating and cooling costs. [*Landscaping for Energy Efficiency*]

## Water heating

There are many free or very inexpensive water heating measures that can pay for themselves in less than a year. These include lowering your water heater thermostat, installing low-flow showerheads, choosing cool clothes-washer settings, installing insulation on the water heater tank, and installing insulation on hot water pipes. [*Energy-Efficient Water Heating*]

If you need to replace your water heater, an energy efficient model will usually be a very good investment. Most of the savings from efficient clothes-washers and dishwashers come from reducing the amount of hot water required. [*Selecting a New Water Heater* and *Energy Savers*]

## Other end uses

For most homes, the major 'other' end uses are lighting, refrigeration, and clothes-drying. For lighting, just remember that a switch from a regular incandescent bulb to a compact fluorescent will typically save about $35 over the life of the bulb. Also, avoid halogen torchieres (those inexpensive dimmable lamps that flood the ceiling with light). Energy efficient torchieres are available at competitive prices at local hardware stores or on the web. [www.LightSite.net and *Energy-Efficient Lighting*]

If you are buying a new refrigerator or dryer, make sure to look for energy efficient models. They have many energy-saving features that can greatly reduce energy bills. [See *Energy Savers* and efficient appliance listings.]

## Choosing measures

To decide which measures are most cost-effective for your situation, you will need: (1) a physical description of the home (including insulation levels, as well as types of equipment and appliances in the home and their patterns of use) and (2) energy bills for the last year. EREC can supply a 'Home Energy Audit Form' to help collect the right information. A lot of this information may be available for large groups of homes from tribal housing and LIHEAP offices.

One way to identify cost-effective measures is to use a web-based model called the Home Energy Saver

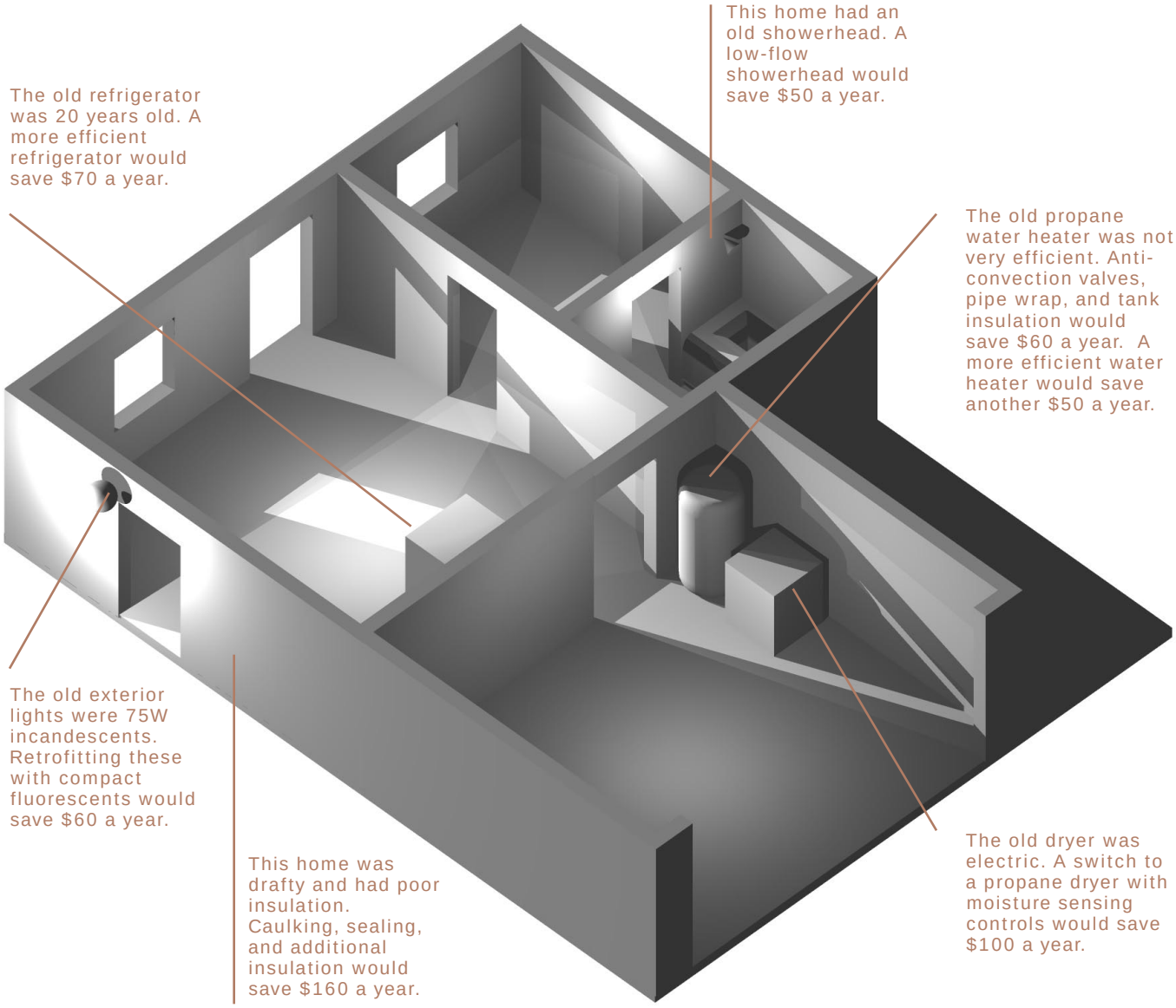
(http://eetd.lbl.gov/hes). Based on the information you enter, the program will estimate energy costs for different energy uses in your home, identify good conservation measures, and estimate the savings associated with each. You can use your real energy bills to check if the Home Energy Saver estimates are accurate and decide if you need to revise the input data. While this may all sound a bit confusing, the Home Energy Saver website makes it simple.

If you are setting up a weatherization program and need to identify measures in the field, you might consider using the computerized National Energy Audit Tool (NEAT) available from the US Department of Energy or a standardized Home Energy Rating System (HERS). HERS are accredited for use in many (but not all) states. See the resources section on page six.

Whether you choose to take on a shade tree project, simple weatherization, or replacement of inefficient appliances, you'll be repaid in both dollars and comfort. A tribal energy efficiency project can keep tens of thousands of dollars per year from flying straight off the reservation to the utility company. And, if you are contemplating any renewable energy development, energy efficiency is a must to make the project economical. When you do take on a project, please let NAREEP know, so that we can pass on your experience to other tribes.

*—John Elliott*

**Last year the energy bill for this home was $1,900**




**All these measures together would save $550 a year—almost 30%**

*Continued from page 1*

budget counseling, adult education classes, and employment with tribal enterprises. George also works with local electricity, propane, and fuel oil suppliers to arrange budget billing. This allows families to spread out winter heating costs by paying the same average bill every month. Families that remain active partners in the program can also receive up to $200 of heating assistance.

## Education and Evaluation

The Cherokee Nation completed a one-year REACH program this winter, weatherizing twenty homes and doing 50 home visits. According to Andy Quetone who directed the Nation's REACH program, the home visits are an effective way to provide education about energy conservation and to identify specific opportunities for savings. "We do a step-by-step inspection of each house to check for insulation levels and leaks around plumbing, windows, and doors," says Quetone. "Then we give each tenant energy saving tips that they can do themselves." The program also installed solar air heating panels on ten homes to provide extra comfort on cold, sunny days.

Quetone developed educational materials to distribute during home visits and at the LIHEAP office. "I have collected a lot of information from the web," says Quetone. "I also got information about energy conservation from the LIHEAP Clearinghouse and the Department of Energy." A video borrowed from a local utility now greets clients at the LIHEAP office as they sign up for assistance.

Quetone plans to do an evaluation of the program to figure out how effective it has been in lowering bills. He is compiling billing information from utilities and heating fuel vendors for homes one year both before and after homes were improved. He expects substantial savings over the entire year. "Already we saw air conditioning bills go down," says Quetone. "We had a brutal summer and the sealed houses kept a lot more cold air in."

## Outreach and Coordination

In southeastern Alaska, the Central Council of Tlingit and Haida Indian Tribes is doing its best to keep cold air out of homes. They received REACH grants in 1996 and 1998, and have transformed their LIHEAP program into a proactive outreach, education, and counseling service. According to Sandra Cross, coordinator of Central Council's REACH program, "We saw a big improvement after the first year in budget management and a drop in cases for the crisis intervention program." The Central Council offers crisis intervention to households that are in danger of having their electricity cut off, are out of fuel oil, or are being evicted.

The program relies on early identification and outreach to those families most in need, using a database compiled by the LIHEAP office. During the first program year, the Central Council focused on serving the elderly, disabled, and unemployed. The program provided over 130 tribal families in the Matakatla Indian community and the Juneau area with individualized assistance to keep up with energy bills.

Cross also orchestrated two 'community fairs' to raise awareness of energy issues and coordinate services to help lower bills. "We worked with over seventeen entities from Headstart to the Housing Authority," says Cross. She adds, "Alaska Power and Light did a great energy conservation workshop." The fairs helped families take advantage of services for weatherization and home repair. As a result of the fairs and contacts developed by Cross, the housing office has provided some roof and window repairs to homes, as well as some energy efficient stoves. Also, families are now aware of how to request weatherization services from the Alaska Rural Development Council, which provides weatherization assistance across the state.

For more information about the REACH program, see the resources section on page six.

*—John Elliott*

The Cherokee Nation REACH Project performs weatherization work on a home to lower energy costs.

# Laura Weber and Adrian McDonald of the St. Regis Mohawk Tribe

Laura Weber

The St. Regis Mohawk Tribe teamed up with Pace University Energy Project in 1994 to develop a sustainable energy program for the reservation. Laura Weber was the original director of this project, doing the early survey and community meeting work. Adrian McDonald now directs the project as it focuses on the formation of an electrical co-operative.

It's been 3 years since the St. Regis Mohawk/Pace Energy Project was begun. What difference do you think the program has made on the reservation?

LW: The biggest difference is that the Program began working with the local power authority to establish an electrical cooperative. A portion of the income will be used to finance energy efficiency improvements. This cooperative may have happened without our help, but they would have been years behind where they are today.

Has the project made a difference in people's thinking about low cost and no cost energy efficiency changes?

LW: When I was doing the residential and business energy surveys, people would want to learn more about efficiency. Generally, there are small changes, but not as big as we'd like. Part of that is the initial costs of improvements.

What about weatherstripping, caulking, and other very low cost improvements?

LW: That was another of the things we accomplished. We were able to get a weatherization assistance program (WAP) for qualifying low-income households back onto the reservation. After discussion with the Tribe and the State WAP, a local person was hired by the County WAP to provide weatherization assistance on the reservation. Twenty-eight households have received weatherization assistance since 1996. I don't think the weatherization assistance program would have happened if the Energy Project had not existed.

Can you tell me something about how the Energy Project got started?

LW: A lawyer working for the St. Regis Mohawk Tribe's Environmental Division had a friend who was a lawyer at the Pace University Energy Project. The Pace University people met with folks at St. Regis and started a discussion about energy needs and possible programs. Then Pace University went after private foundation funds for the project. These funds paid for energy surveys and analysis as well as wind energy studies.

Could you tell me how you went about doing the energy surveys?

LW: We surveyed 100 homes and 100 businesses. This accounted for about 10 percent of the homes and almost all of the businesses. The survey was developed in partnership with Vermont Energy Investment Corporation (VEIC). The people at VEIC trained me in conducting the surveys, then accompanied me on the first 5 to 7 surveys.

What did you learn about possible energy efficiency improvements?

LW: We found that we could reduce building energy consumption by 14 percent through simple, cost-effective improvements. These improvements would cost $1.24 million and would have a payback period of four years.

What do you think it will take to make these improvements a reality?

LW: We need up-front funding for the improvements. Much of our population lives at low-income and very low-income levels. They are not going to buy a $5 light bulb; they'll go for the 4 for $1 deal. Energy efficiency improvements need to be wrapped into how they pay for their energy. That's what we are trying to do through the cooperative.

What advice would you give to other tribes that are trying to get an energy efficiency program started?

LW: I think partnering with an organization with experience in the field, like the Pace University Energy Project, is helpful in getting funding. My other suggestion is to do energy surveys so that you can get a handle on what's going on as far as energy use in the homes and businesses.

As a result of the work of the project, have there been any changes in design requirements for new housing?

AM: The Housing Authority is quite separate from the Energy Program which is under the Environmental Division. The Housing Authority is pretty up to date about energy efficiency. Most homes are HUD homes; fortunately, we have one of the best HUD programs. There is no permitting system on the St. Regis reservation.

To learn more about the St. Regis Mohawk Tribe Energy Project, contact Adrian McDonald at 518-358-5937; Rt. 37, Box 8A, Hogansburg, NY, 13655. You may check the St. Regis Mohawk Tribe Environmental Division web site, www.northnet.org/earth.

*—Vivian Gratton*

## FOCUS ON RESIDENTIAL ENERGY EFFICIENCY RETROFITS

All of the fact sheets mentioned on pages 2 and 3 are available for free from the *Energy Efficiency and Renewable Energy Clearinghouse (EREC)*. Fact sheets are available on the web from the Consumer Energy Information homepage at www.eren.doe.gov/consumerinfo/ or by request at (800) DOE-EREC (363-3732). EREC has a staff that can help answer any question related to energy efficiency or renewable energy.

*Energy Savers* and the *Insulation Fact Sheet* are available directly from the Consumer Energy Information homepage. *Home Energy Audits* is found by selecting EREC Technology and Reference Briefs from the homepage under the Residential Buildings section. All other fact sheets are found by selecting EREC Fact Sheets including: *Automatic and Programmable Thermostats, Loose-Fill Insulations, Energy-Efficient Windows, Landscaping for Energy Efficiency, Energy-Efficient Water Heating, Selecting a New Water Heater,* and *Energy-Efficient Lighting*. Also check out *Cooling Your Home Naturally*, and *Saving Energy with Electric Resistance Heating*.

Listings of energy-efficient furnaces, air conditioners, water heaters, and appliances can be found at http://eetd.lbl.gov/hes/librarian_frame.html or www.energystar.gov. Listings are also available in the *Consumer Guide to Home Energy Savings* (see Books and Magazines).

Information about the National Energy Audit Tool (NEAT) is available at http://www.eren.doe.gov/buildings/state_and_community/weather/audit_tools.html. For general information about Home Energy Ratings Systems (HERS), or to see if HERS is available in your area contact RESNET at www.natresnet.org/default.htm or 475 College Blvd. #6-210, Oceanside, CA 92057.

Detailed information for someone wanting to conduct home energy audits and weatherize homes can be found in the book *Residential Energy* (see Books and Magazines).

## BOOKS AND MAGAZINES

*Homemade Money* by Richard Heede and the staff of the Rocky Mountain Institute (1995). A good practical overview to home energy efficiency. Available from Rocky Mountain Institute, (970) 927-3851 or www.rmi.org.

*Consumer Guide to Home Energy Savings* by Alex Wilson and John Morrill (1998, Sixth Edition). A comprehensive guide to home energy efficiency with listings of the most energy-efficient home appliances. Available from American Council for an Energy Efficient Economy, (202) 429-0063 or http://aceee.org.

*Residential Energy* by John Krigger (1994). A readable and comprehensive energy efficiency manual for the practitioner. Also available by John Krigger: *Your Mobile Home Energy and Repair Guide for*

*Manufactured Housing* (1991). Another good guide for the practitioner wanting to work on mobile homes. Available from Saturn Resource Management, (800)735-0577.

*Our Home—Buildings of the Land: Energy Efficiency Design Guide for Indian Housing* by Dr. J. Douglas Balcomb (1994). A guide to incorporating energy efficiency into Indian housing. Available from the National Technical Information Service at (800) 553-6847 (order number PB95-254322).

*Home Energy Magazine*. A practical magazine about residential energy conservation, published every two months. Available from Home Energy, (510) 524-5405.

## FEDERAL AND UTILITY PROGRAMS

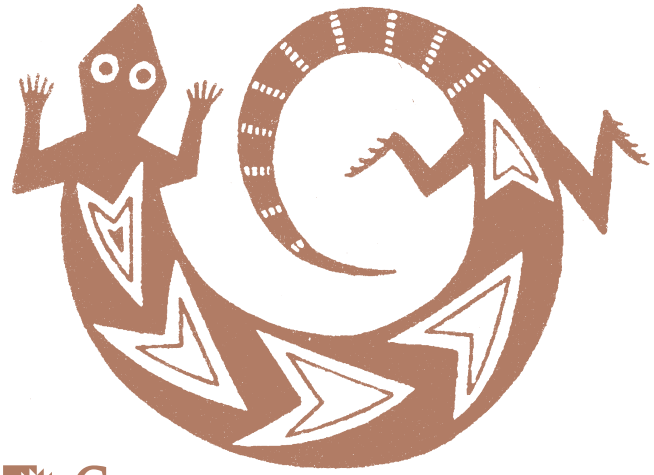
Fifteen to 25 percent of each tribe's **Low Income Home Energy Assistance Program (LIHEAP)** allocation may be used for weatherization improvements. For information about LIHEAP, see www.acf.dhhs.gov/programs/liheap/liheap.htm or call the Division of Energy Assistance at (202) 401-9320.

Information about the **Residential Energy Assistance Challenge (REACH)** program and descriptions of funded projects are available from the LIHEAP Clearinghouse at (888) 294-8662 or www.ncat.org/liheap/pub.htm. Application kits are available from the US Department of Health and Human Services at (202) 401-1195.

**The Weatherization Assistance Program (WAP)** is a network of low income weatherization programs funded by the DOE and administered by states. Tribes can receive funding and training through the state to set up their own weatherization program. Tribes can also receive weatherization services from regional organizations funded through the program. WAP programs nationwide currently reduce heating costs in homes receiving weatherization services by an average of 20 to 35 percent. For general information about WAP or to find a number for your state WAP coordinator see www.eren.doe.gov/buildings/state_and_community/weather/ or contact the US DOE Office of State and Community Programs, (202) 586-4074.

**Native American Housing Assistance Self-Determination Act (NAHASDA)** block grants may be used for energy efficiency measures in new or existing housing. See http://198.200.153.6/IHP/newhome.nsf?OpenDatabase to read Indian Housing Plans (IHPs) that have been submitted by tribes. Please share your efforts to incorporate energy efficiency into your IHP by contacting NAREEP at (510) 643-1928.

**Local Utilities** often provide energy efficiency services including weatherization, energy efficiency rebates, and energy audits. Please contact your local utility to identify opportunities.



## Indian Housing Plans

Many tribes have submitted new Indian Housing Plans (IHPs) to HUD and are now using their first NAHASDA (Native American Housing Assistance Self Determination Act) block grants. It is still too early to identify the most innovative elements of the new IHPs. The Rosebud Sioux Tribe plans to create a new tribal housing center that will consolidate eight administrative operations related to housing, housing rehabilitation, and energy assistance. They are also starting a new weatherization program that will be located in the same center. It is anticipated that this bureaucratic streamlining will allow energy efficiency activities to be integrated into housing development, maintenance and repair.

Let us know what your new TDHE (tribally designated housing entity) is doing, especially with regard to energy and energy efficiency. To share your comments with others, contact NAREEP directly.

## Grand Traverse Band's Renewable Energy Activities

Under a NASA grant, the Grand Traverse Band of Ottawa and Chippewa (GTB) is completing a K-8 renewable energy curriculum for the school. For secondary and higher curriculum, three courses are being prepared for Bay Mills Community College, which will be web based, starting with "Energy History and Sutstainable Energy Development."

Students perform an energy audit of a home during an Energy Audit Training held on the Rosebud Sioux reservation in October 1998.

GTB has also received two small grants of $5,000 each to do a student traveling renewable energy education display and to install a small hybrid wind and PV power system on a GTB building to provide a technical demonstration and hands-on project for students. The power system should be up before the end of the year and the display in spring.

Linda Kerridge at the GTB Education Division (616) 935-3602 is the contact person. For technical details and questions contact Steve Smiley at (616) 271-4850 or email at smiley@traverse.com.

## D-Q University's Renewables Curriculum

For spring semester, 1999, D-Q University will be offering a course entitled "Energy Systems." The curriculum will focus on renewable energy systems such as solar, wind, and biomass, including a study of the physical, chemical and mathematical principles underlying these systems of energy production. Attention will also be given to their application and appropriateness for residential and small community use. Field trips and hands-on energy projects will be an integral part of the course. Additionally, the course will utilize NAREEP's Renewable Energy Curriculum.

For more information, contact Susan Mahoney at D-Q University. Her email address is smahoney @dqu.cc.ca.us.

## Southern California Tribal Chairmen's Association Intervention

This fall SCTCA intervened as a party in the ongoing proceeding concerning low income and energy efficiency programs that have come about as a result of AB 1890 and which is being held by the California Public Utilities Commission. SCTCA intervened to ensure that Indian tribes in southern California participate in determining the administrative structure and policy decisions affecting these programs and their implementation on southern California reservations. For more information, contact David Dehnert, (626) 836-8655.

## Native Renewable Energy in Alaska

Alaska Native communities have become increasingly interested in renewable energy development as a means of increased self-reliance, community development and economic benefit. In south central Alaska, Chickaloon Native Village began a wind speed monitoring program in May 1998. In northwest Alaska, the Native Village of Point Hope conducted a wind resource analysis that shows significant economic development potential. Throughout the state, other Tribal and Native governments have indicated their readiness to begin the resource assessment and system design process. For more information, contact David A. Blecker, P.E., MSB Energy Associates at (608) 831-1127 ext. 310 or blecker@msbnrg.com.

## Energy Audit Training at Rosebud

A four-day energy auditing training conference was held last October on the Rosebud Sioux reservation. The training was attended by students from the Rosebud, Oglala, Cheyenne River and Lower Brule Sioux tribes. The training was sponsored by the Rosebud Sioux Tribe Utility Commission, Rebuild America, the South Dakota Office of Energy Assistance, Sinte Gleska University, and the Intertribal Council on Utility Policy. Contact Jack Davey at (605) 856-4335 for more information.

INDIAN SUSTAINABLE ENERGY NEWS

EXECUTIVE EDITOR
JOHN BUSCH

MANAGING EDITOR
TRISHA FRANK

CONTRIBUTING EDITORS
VIVIAN GRATTON, JOHN ELLIOTT

GRAPHIC DESIGN
JOHN ODAM

CIRCULATION
JOHN GALLOWAY

INDIAN SUSTAINABLE ENERGY NEWS IS A PUBLICATION OF THE NATIVE AMERICAN RENEWABLE ENERGY EDUCATION PROJECT
THE NATIVE AMERICAN RENEWABLE ENERGY EDUCATION PROJECT IS A RESEARCH, EDUCATION, AND TECHNICAL ASSISTANCE PROGRAM THAT SUPPORTS AMERICAN INDIAN COMMUNITIES IN PURSUING SUSTAINABLE ENERGY STRATEGIES. NAREEP IS A JOINT PROJECT OF THE ENERGY AND RESOURCES GROUP AT THE UNIVERSITY OF CALIFORNIA AT BERKELEY AND LAWRENCE BERKELEY NATIONAL LABORATORY.

TO CONTACT NAREEP:
310 BARROWS HALL
U.C. BERKELEY
BERKELEY CA 94720-3050
TEL: 510.643.1928
FAX: 510.642.1085
EMAIL:
NAREEP@SOCRATES.BERKELEY.EDU
WEBSITE: HTTP://EETD.LBL.GOV/NAREEP

Please call NAREEP if you are interested in doing and energy effeciency or renewable energy project.

PUB-818 REV.
WINTER SOLSTICE 1998 - 3000

This work was supported by the U.S. Department of Energy under Contract No. DE-AC03-76SF00098, Lawrence Berkeley National Laboratory, University of California.



## NEWS FROM NAREEP

NAREEP is continuing to offer technical, policy, and legal assistance to the **Yurok Tribe** for it's rural electrification efforts. The tribe is focusing on using microhydro and solar resources to provide electricity to tribal members on a remote part of the reservation. **Arne Jacobson**, who spent Spring and Summer 1998 working closely with the tribe on the reservation, helped to organize a workshop with **Solar Energy International**, where **Johnny Weiss** taught a dozen tribal members basic renewable energy system principles and maintenance. Meanwhile, **Tom Starrs** and **Margie Schaff** have been advising the tribe on issues related to the formation of a tribal utility to serve the reservation.

The **Zuni Sustainable Energy Project** (ZSEP) under the direction of **Jim Enote** has gotten off the ground with a grant from the **Greenville Foundation** and assistance from NAREEP staffers **Chris Greacen** and **Erika Walther** and **Nick Martin**. ZSEP aims to provide education, design, sales, installation, maintenance and financing services in support of renewable energy technologies on the Zuni reservation, initially focused on small solar home and water pumping systems. Erika recently organized a 5-day training for ZSEP, led by Solar Energy International and **Debbie Tewa** of Hopi Solar/Native Sun. She has also been working with the Zuni Museum to expand its PV exhibits.

On the **Rosebud Sioux** reservation, **John Elliott** has been assisting folks, working closely with **Jack Davey** of **Sinte Gleska University**, the **Rosebud Sioux Tribe Utility Commission**, **Rosebud housing (SWA Corporation)**, and **Intertribal Council on Utility Policy** to develop a program for increasing the energy efficiency of housing and other buildings. John is also assisting the tribe with its first major project in partnership with **Rebuild America**: an energy efficiency retrofit at the tribe's Casino Hotel and Convention Center complex.

**John Elliott**, **John Galloway**, and **John Busch** ("the Johns") have been working to revamp the NAREEP website (http://eetd.lbl.gov/nareep), to make more information on Native American sustainable energy issues available to cyberspace surfers. The **NAREEP Information Clearinghouse** is now in full swing, with a telephone hot-line and e-mail inquiry service. The Clearinghouse draws on the expertise of other tribes, the academic community, sustainable energy professionals, government and private foundations.

Several years in the making, NAREEP's *Native Power* was released in Spring 1998. This practical, accessible introduction to the types of sustainable energy technologies and projects of potential use to Native communities was sent to the heads of all federally-recognized tribes as well as to all of our contacts. It is free for the asking so just send in your request for copies.

**Vivian Gratton** presented a workshop entitled "Sustainable Energy in Indian Country" at **First Nation Development Institute**'s annual economic development conference held in May 1998 in Portland Oregon. FNDI is a great resource when it comes to developing a funding plan for your energy projects.

**Steve Wiel** spoke on sustainable energy and electricity restructuring at the Intertribal Council on Utility Policy's conference "Restructuring, Renewables, and Reservations" held May 1998 in Rapid City, South Dakota.

The **Southern California Tribal Chairmen's Association** and the **Council of Energy Resource Tribes** hosted a two-day workshop held September 1998 in San Diego, California on electricity restructuring where, among other talks, John Busch spoke on sustainable energy experience and opportunities for tribes.

**Doug Avery** spoke at the **Yavapai Apache Nations** Arizona Intertribal Conference on Electric Utilities held August 1998 in Prescott Arizona. Doug continues to pursue tribal partnerships with Rebuild America, a **U.S. Department of Energy** program aimed at helping communities organize themselves to implement energy efficiency programs for existing buildings.

INDIAN SUSTAINABLE ENERGY NEWS
310 BARROWS HALL, #3050
UNIVERSITY OF CALIFORNIA
BERKELEY, CA 94720-3050

NONPROFIT
U.S. POSTAGE
PAID
PERMIT NO. 1123
BERKELEY,
CALIFORNIA
94720